

### AMENDMENTS TO THE CLAIMS

1. **(Amended)** A method for collision avoidance in a wireless communication network wherein a first subset of communications devices exchange data through transmissions using a first protocol and a second subset of communications devices exchange data through transmissions using a second protocol and wherein the transmissions occur over at least partially overlapping frequencies, the method comprising:

acquiring transmission characteristics of a first transmission transmitting data using the first protocol, wherein a first quality of service level is associated with the first transmission;

acquiring transmission characteristics of a second transmission transmitting data using the second wireless protocol, wherein a second quality of service level is associated with the second transmission;

analyzing the transmission characteristics to determine an imminent collision between the first transmission and the second transmission; ~~transmissions of the first protocol and the transmissions of the second protocol;~~

determining a first priority associated with the first transmission and a second priority associated with the second transmission;

determining a current quality of service of each of the first and second transmissions; and

prioritizing transmission of the first and second transmissions so as to maintain each of the first and second transmissions within their respective desired service levels, wherein the prioritizing is based at least partly on the priorities and the current quality of service associated with the first and second transmissions.; and

~~moderating the transmissions of at least one of the protocols to avoid the imminent collision identified by the analysis of the transmission characteristics.~~

2. **(Original)** The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring an order of transmitted data.

3. **(Original)** The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a timing of transmitted data.

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4. **(Original)** The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a frequency that the data will be transmitted on.

5. **(Original)** The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a channel that the data will be transmitted on.

6. **(Original)** The method of collision avoidance of Claim 1, wherein the first protocol or the second protocol comprises a frequency-hopping spread spectrum (FHSS) protocol.

7. **(Original)** The method of collision avoidance of Claim 6, wherein the FHSS protocol further comprises a Bluetooth protocol.

8. **(Original)** The method of collision avoidance of Claim 1, wherein the first protocol or the second protocol comprises a direct sequence spread spectrum (DSSS) protocol.

9. **(Original)** The method of collision avoidance of Claim 8, wherein the DSSS protocol comprises an IEEE 802.11 DSSS protocol or an IEEE 802.11b DSSS protocol.

10. **(Original)** The method of collision avoidance of Claim 1, wherein the imminent collision is avoided by moderating the transmissions of the first protocol during time frames where the first protocol and the second protocol are overlapping.

11. **(Original)** The method of collision avoidance of Claim 1, wherein the first or second protocols comprise fixed-frequency protocols.

12. **(Original)** The method of collision avoidance of Claim 1, wherein the first or second protocols comprise alternating-frequency protocols.

13. **(Original)** The method of Claim 1, wherein analyzing the data exchange further comprises determining a service level for the first protocol and a service level for the second protocol.

14. **(Original)** The method of Claim 13, wherein the service level for the first protocol and the service level for the second protocol are degraded by collisions between transmissions using the first protocol and the second protocol.

15. **(Original)** The method of Claim 14, wherein the service level for the first protocol and the service level for the second protocol are analyzed to determine if the service levels are in an acceptable range.

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16. **(Original)** The method of Claim 15, wherein the service level for the first protocol and the second protocol are maintained within the acceptable range by moderating the transmissions of at least one of the protocols.

17. **(Amended)** A method for collision avoidance in a wireless communication network wherein data transmissions using a first protocol and a second protocol are utilized by a plurality of communications devices to exchange data and information over at least partially overlapping frequencies, the method comprising:

acquiring transmission characteristics of a first transmission transmitting data packets transmitted using the first protocol and a second transmission transmitting data packets transmitted using the second protocol, wherein a first desired service level is associated with the first protocol and a second desired service level is associated with the second protocol;

analyzing the transmission characteristics to determine imminent collisions ~~in~~ between the first transmission of the data packets using the first protocol and the second transmission of data packets transmitted using the second protocol; and

determining a first and a second transmission priorities associated with the first and second transmissions of data packets, respectively;

determining a current quality of service for at least one of the first and second transmissions; and

prioritizing transmission of the first and second transmissions of data packets so as to maintain each of the first and second transmissions of data packets within their respective desired service levels, wherein the prioritizing is based at least partly on the priorities and the determined current quality of service.

~~moderating data exchange in at least one of the protocols to avoid imminent collisions in the transmission of the data packets using the first protocol and data packets transmitted using the second protocol.~~

18. **(Original)** The method of collision avoidance of Claim 17, wherein acquiring transmission characteristics comprises acquiring an order of transmitted data packets.

19. **(Original)** The method of collision avoidance of Claim 17, wherein acquiring transmission characteristics comprises acquiring a timing of transmitted data packets.

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20. **(Original)** The method of collision avoidance of Claim 17, wherein acquiring transmission characteristics comprises acquiring a frequency that the data packets will be transmitted on.

21. **(Original)** The method of collision avoidance of Claim 17, wherein acquiring transmission characteristics comprises acquiring a channel that the data packets will be transmitted on.

22. **(Original)** The method of collision avoidance of Claim 17, wherein the first protocol or the second protocol comprises a frequency-hopping spread spectrum (FHSS) protocol.

23. **(Original)** The method of collision avoidance of Claim 17, wherein the first protocol or the second protocol comprises a direct sequence spread spectrum (DSSS) protocol.

24. **(Original)** The method of collision avoidance of Claim 17, wherein the first and the second protocols control subsets of communication devices that have at least partially overlapping transmission areas.

25. **(Original)** The method of collision avoidance of Claim 17, wherein the imminent collisions are avoided by moderating the transmission of data packets in the first protocol or the second protocol such that the data packets of each protocol are transmitted in a non-overlapping manner.

26. **(Original)** The method of Claim 17, wherein analyzing the data transmissions further comprises identifying traffic types and determining quality of service for the traffic types.

27. **(Original)** The method of Claim 26, wherein the traffic types comprise a voice quality traffic type and a data quality traffic type.

28. **(Original)** The method of Claim 26, wherein moderating data exchange in at least on the protocols further comprises prioritizing the traffic types based on the quality of service for the traffic types.

29. **(Original)** The method of Claim 26, wherein moderating data exchange in at least one of the protocols further comprises prioritizing the traffic types based upon desirable transmission quality statistics.

30. **(Original)** The method of Claim 29, wherein the transmission quality statistics comprise packet loss rates.

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31. **(Original)** The method of Claim 29, wherein the transmission quality statistics comprise packet delays.

32. **(Original)** The method of Claim 29, wherein the transmission quality statistics comprise packet throughput.

33. **(Amended)** A data collision rectification device for use in a wireless communication network wherein data transmissions using frequency-overlapping protocols comprising a first protocol and a second protocol operate to exchange information between a plurality of data transfer nodes, the device comprising:

a coordination module which determines first and second transmission priorities associated with a first data transmission using the first protocol and a second data transmission using the second protocol, respectively; determines first and second desired quality of service levels associated with the first and second transmissions, respectively; and prioritizes transmission of the first and second transmissions so as to maintain each of the first and second transmissions within their respective desired quality of service levels, wherein the prioritization is based at least partly on the transmission priorities and a current quality of service associated with the first and second transmissions; and subsequently assesses the transmission statistics to determine if an acceptable quality of service is maintained; and

a synchronization module which moderates information exchange in at least one of the frequency-overlapping protocols according to the prioritization performed by the coordination module.

34. **(Original)** The data collision rectification device of Claim 33, wherein the coordination module applies a quality monitoring schema which distinguishes between one or more traffic types associated with the first and the second frequency-overlapping protocols and assesses if acceptable quality of service is maintained for each traffic type.

35. **(Original)** The data collision rectification device of Claim 34, wherein the synchronization module moderates the traffic types to maintain acceptable quality of service.

36. **(Original)** The data collision rectification device of Claim 34, wherein the coordination module assesses quality of service by comparing current quality of service for the traffic types with defined quality of service levels.

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37. **(Original)** The data collision rectification device of Claim 34, wherein the current quality of service is determined by assessing the transmission characteristics of the traffic types.

38. **(Original)** The data collision rectification device of Claim 34, wherein the traffic types comprise voice quality traffic types or data quality traffic types.

39. **(Original)** The data collision rectification device of Claim 34, wherein the traffic types have individual quality of service requirements which must be met to maintain acceptable quality of service.

40. **(Original)** The data collision rectification device of Claim 33, wherein the frequency-overlapping protocols comprise a frequency-hopping spread spectrum (FHSS) protocol.

41. **(Original)** The data collision rectification device of Claim 40 wherein the FHSS protocol further comprises a Bluetooth protocol.

42. **(Original)** The data collision rectification device of Claim 33, wherein the frequency-overlapping protocols comprise a direct sequence spread spectrum (DSSS) protocol.

43. **(Original)** The data collision rectification device of Claim 42, wherein the DSSS protocol comprises an IEEE 802.11 DSSS protocol or IEEE 802.11b DSSS protocol.

44. **(Original)** The data collision rectification device of Claim 33, wherein the frequency-overlapping protocols comprise fixed-frequency protocols or alternating-frequency protocols.

Claims 45-52 **(Cancelled)**